APPENDIX F

Wetland Delineation Report

Wetland Delineation Report

Schenectady County Airport
Off Airport Obstruction Tree Removal
Town of Glenville
Schenectady County, New York

CHA Project Number: 052475

Prepared for:
County of Schenectady
100 Kellar Avenue
Schenectady, New York 12306

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November 10, 2020

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SIGNATURE PAGE

This report has been prepared and reviewed by the following qualified personnel employed by CHA.

Report Prepared By:

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Senior Scientist V

Report Reviewed By:

Christopher Einstein, PWS
Principal Scientist

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LIST OF ACRONYMS & ABBREVIATIONS

BFD	Bankfull Depth
BFW	Bankfull Width
CWA	Clean Water Act
FEMA	Federal Emergency Management Agency
FWW	Freshwater Wetland
HUC	Hydrologic Unit Code
JD	Jurisdictional Determination
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NYSDEC	New York State Department of Environmental Conservation
TNW	Traditional Navigable Waters
USACE	United States Army Corps of Engineers
USFWS	United States Department of the Interior, Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

The two project areas are associated with the approach to Runway 10 at the Schenectady County Airport, located in the Town of Glenville, Schenectady County, New York (Appendix A). The jurisdictional determination (JD) areas total 37.3 acres. The approximate center point coordinates of the project areas are Latitude 42° 50' 54.03"N; Longitude 73° 56' 47.12"W.

The purpose of this report is to document the wetland communities and their boundaries as well as streams within the project area. These areas have been identifed on the Wetland Delineation Map (Appendix B).The report includes a general description of the project areas, their ecology, wetland description and is complimented by wetland determination data forms (Appendix C) and site photographs (Appendix D).

CHA was retained to delineate and describe the wetlands within the project areas that may be regulated by the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). The wetland delineation was conducted by Nicole Frazer, Senior Scientist and Cole Scrivner, Scientist I on September 29, 2020.

1.1 PROJECT AREA DESCRIPTION

The project areas are located in the approach to Runway 10 of the Schenectady County Airport. The project area to the west of the runway end is residential and the project area to the south (rectangular area) of the runway end is primarily forested with a small area of commercial property. Within the project area to the west of the runway end there is a perennial stream and a small emergent wetland that is fringe to the stream.

2.0 METHODOLOGY

The project areas were evaluated in accordance with the procedures provided in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Manual: Northcentral and Northeast Region Version 2.0 (January 2012). The "Routine Wetland Determination" method was used.

The wetland boundary was determined in the field based on the three parameter approach, whereby an area is a wetland if it exhibits vegetation adapted to wet conditions (hydrophytes), hydric soil

indicators, and the presence or evidence of water at or near the soil surface during the growing season (hydrology).

Coded surveyor's ribbons (e.g. flag code A-1, A-2, etc.) were placed along the wetland and stream boundaries based on observations of vegetation, soils and hydrologic conditions. Flagged boundaries were GPS located.

Data points were recorded along the wetland boundary. A wetland and upland data point was recorded to show the difference between the wetland and upland habitats. Wetland determination data forms corresponding to each point can be found in Appendix C.

Representative photographs of the wetland, stream and upland portions of the project area are provided in Appendix D.

Vegetative community types within the project areas are described according to *Ecological Communities of New York State, Second Edition* (Edinger 2014)[1] and *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979)[2].

3.0 INVESTIGATION RESULTS

3.1 RESOURCE REVIEW

Prior to visiting the project areas, various maps and other sources of background information were reviewed. These included the following:

- United States Geological Survey (USGS) 7.5-minute Topographic Map
- New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetlands (FWW) Map
- United States Department of the Interior, Fish and Wildlife Service (USFWS), National

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[1] Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. *Ecological* Communities *of New York State.* Second Edition. A revised and expanded edition of Carol Reshke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

[2] Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe, 1979. *Classification of wetlands and deepwater habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Wetlands Inventory (NWI) map
- Natural Resources Conservation Service (NRCS) Soil Survey for Schenectady County
- Federal Emergency Management Agency (FEMA) Flood Zone Map

Refer to Appendix A for each of these figures.

3.1.1 USGS Topographic Map

According to the USGS Topographic Map, the project areas lie west and south of the west end of Runway 10. These areas have flat topography.

3.1.2 NYSDEC Freshwater Wetlands Map

No mapped NYSDEC freshwater wetlands or 100-foot Adjacent Areas are within the project areas. However, mapped FWW S-104, a Class I wetland, is located to the north of the project areas.

3.1.3 National Wetland Inventory (NWI) Map

Review of the NWI map indicates the western project area is transected by a stream (Horstman Creek). Its Cowardin, et al (1979) classification is Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded (R5UBH). This stream is connected to state wetland S-104 to the north (outside of the project limits). No other mapped features are present within the project areas, however, there are mapped wetlands south of the rectangular project area (south of the runway end) which are identified as Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated (PFO1E), Palustrine Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded/Saturated (PSS1E) and PFO1E/SS1E.

3.1.4 Soil Survey Map

Soils descriptions were obtained from the NRCS Web Soil Survey. This information was used in conjunction with on-site soil sampling to determine the presence of hydric soils. The following soils are mapped as occurring within the project areas:

- Plainfield loamy sand (PsA), 0 to 3% slopes- This soil is an excessively drained. The depth to water table and restrictive feature are more than 80 inches.

- Plainfield loamy sand (PsB), 3 to 10% slopes- This soil is an excessively drained soil. The depth to water table and restrictive feature are more than 80 inches.

- Fredon silt loam (Fr), 0 to 3% slopes- This soil is poorly drained. The depth to water table is about 0 to 6 inches and the depth to restrictive feature is more than 80 inches.

3.1.5 FEMA Floodplain Map

Based on review of the Federal Emergency Management Agency (FEMA) Flood Zone Map, Zone A (100-year floodplain) is associated with Horstman Creek within a portion of the western project area.

3.1.6 Hydrology

The water quality of surface waters in New York State are classified by the NYSDEC as either "AA", "A", "B", "C", or "D". A "T" used with the classification indicates that the stream supports, or may support, a trout population. All streams and water bodies with a classification of C(T) or higher are regulated by the NYSDEC. Horstman Creek is within the western project area. The creek has been designated by the NYSDEC as Class C/ Standard C.

The Hydrologic Unit Code (HUC) for the project areas is 020200041108 (Poentic Kill-Mohawk River).

Horstman Creek (Stream S) is a tributary of the Kromme Kill. The Kromme Kill is a tributary of the Mohawk River. The Mohawk River is a Traditional Navigable Water (TNW). The total distance water flows from the project areas to the Mohawk River is approximately 0.9 aerial miles (2.46 river miles).

3.2 FIELD INVESTIGATION

3.2.1 Vegetative Communities

Vegetative communities identified within the project areas consist of shallow emergent marsh, mowed lawn, mowed lawn with trees, mowed roadside/pathway and successional southern hardwoods.

3.2.2 Discussion of Wetland and Stream

The delineated wetland and stream are described below. Refer to Appendix B for the Wetland Delineation Map and Appendix E for the Preliminary Jurisdictional Determination Form.

Wetland A – This wetland is a small emergent wetland that is fringe to perennial Stream S. Wetland A is dominated by jewelweed (*Impatiens palida*) and also contains species such as beggar ticks (*Bidens frondosa*), sensitive fern (*Onoclea sensibilis*), silky dogwood (*Cornus amomum*), box elder (*Acer negundo*), multiflora rose (*Rosa multiflora*), river bank grape (*Vitis riparia*) and Virginia creeper (*Parthenocissus quinquefolia*). Observed hydrology indicators included saturation (A3) and a positive FAC-Neutral Test (D5). The hydric soil indicator is redox dark surface (F6).

The total size of Wetland A within the western project area is approximately 0.03 acres. Wetland A is federally jurisdictional due to its direct connection to a perennial stream.

Stream S (Horstman Creek)- The bankfull width (BFW) of the stream varies from approximately 5-12 feet and the bankfull depth (BFD) varies from approximately 1-2 feet. The stream is primarily shaded and the substrate consists of cobbles with some gravel and sand. The stream was flowing during the field investigation and is assumed to be perennial. A mix of riffle and pool areas are present. Some portions of the stream are edged with rock wall, one portion has stacked cinder blocks and another section has a concrete wall on one side of the stream. Natural stream bank is also present. No aquatic vegetation was noted. Minnows, water striders and a green frog were observed. Stream S is a tributary of the Kromme Kill that is tributary to the Mohawk River. As noted above, the Mohawk River is a TNW. The length of Stream S within the western project area is 964 linear feet. Stream S is federally jurisdictional.

3.2.3 Discussion of Terrestrial Communities

Mowed lawn- The mowed lawn areas contain grasses and species such as common plantain (*Plantago major*), English plantain (*Plantago lanceolata*), white clover (*Trifolium repens*), bedstraw (*Galium sp*.), red clover (*Trifolium pratense*) and dandelion (*Taraxacum officinale)*. These areas have scattered trees that have less than 30 percent coverage. Some of the tree species include Norway maple (*Acer platanoides)*, silver maple (Acer *saccharinum*), blue spruce (*Picea pungens*) and white pine (*Pinus strobus*).

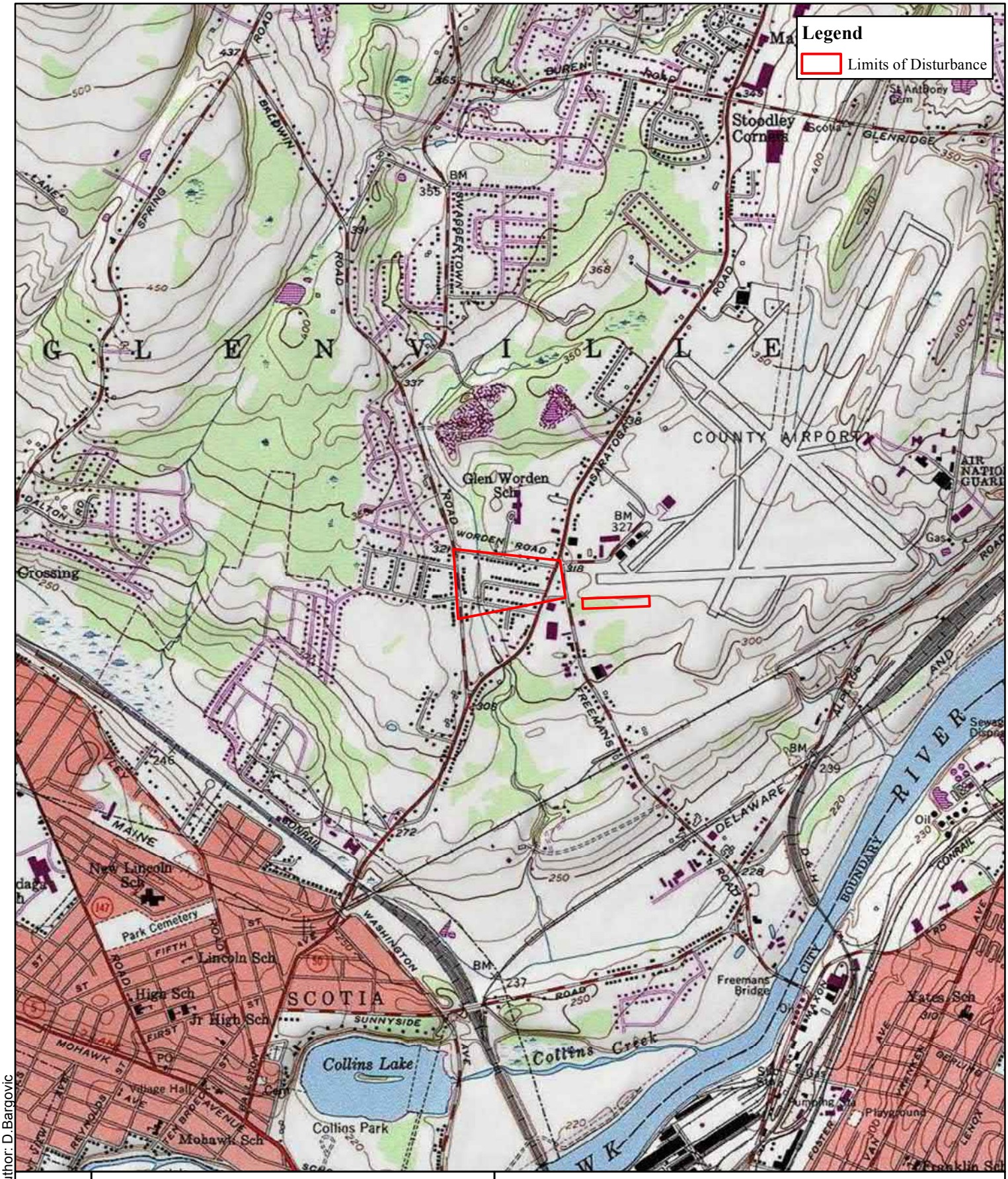
Mowed lawn with trees- These areas contain species such as grasses, white clover, dandelion and common plantain. These areas are shaded with at least 30% cover in trees. Some of these tree species

include blue spruce, Norway maple, silver maple, white pine, red pine (*Pinus resinosa)*, callery pear (*Pyrus calleryana*), eastern red cedar (*Juniperus virginiana*), northern white cedar (*Thuja occidentalis*), Norway spruce (*Picea abies*), black walnut (*Juglans nigra)*, scotch pine (*Pinus sylvestris)*, box elder, crab apple (*Malus sp.*) and northern catalpa (*Catalpa speciosa*).

Mowed roadside/pathway- The mowed pathway contains species such as grasses, dandelion, English plantain, ground ivy (*Glechoma hederacea)*, oriental bittersweet (*Celastrus orbiculatus*), wood sorrel (*Oxalis stricta*) and bedstraw.

Successional southern hardwoods - These areas contain species such as eastern cottonwood (*Populus deltoides*), box elder, buckthorn (*Rhamnus cathartica*), silver maple, white ash (*Fraxinus americana*), quaking aspen (*Populus tremuloides*), Norway maple, red oak (*Quercus rubra*), black cherry (*Prunus serotina*), witch hazel (*Hamamelis virginiana*), thornless honey locust (*Gleditsia triacanthos f. inermis*), black walnut, tree of heaven (*Ailanthus altissima*), gray birch (*Betula populifolia*), Japanese knotweed (*Reynoutria japonica*), honeysuckle (*Lonicera sp.),* staghorn sumac (*Rhus typhina*), black raspberry (*Rubus occidentalis*), jumpseed (*Polygonum virginianum*), white snakeroot (*Ageratina altissima*), stickseed (*Hackelia virginiana*), oriental bittersweet, poison ivy (*Toxicodendron radicans*), clearweed (*Pilea sp*.), mugwort (*Artemisia vulgaris*), greater celandine (*Chelidonium majus),* garlic mustard (*Alliaria petiolata*), heart leaved aster (*Symphyotrichum cordifolium*), Virginia creeper and grape (*Vitis sp*.).

Appendix A



N

CHA

USGS Project Location Map

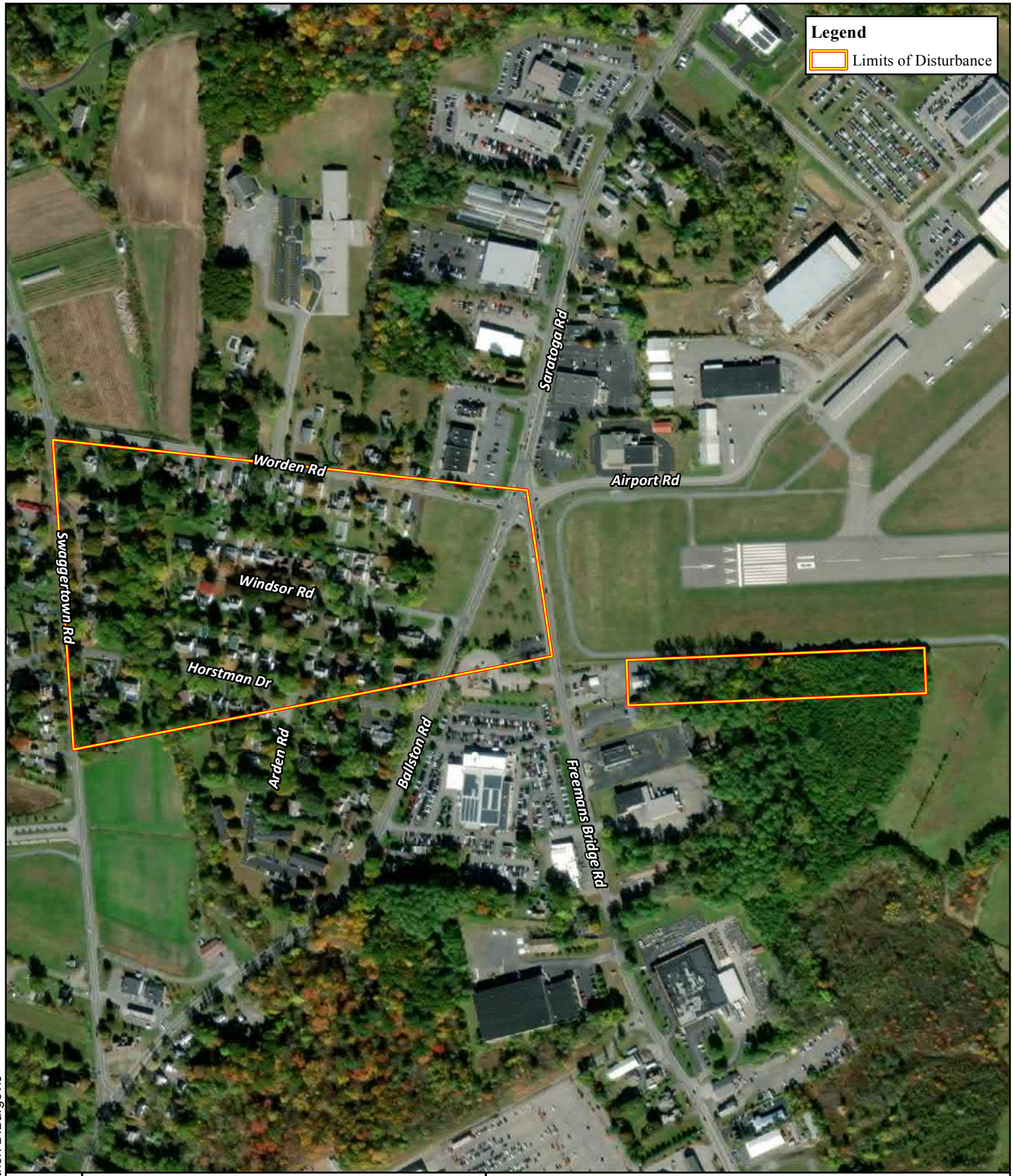
Schenectady County Airport (SCH) - Runway 10
Environmental Assessment for Tree Obstructions
Schenectady County, New York

Scale 1" = 2000'

CHA Project No. 052475

Service Layer Credits:
Copyright: © 2013 National Geographic Society, I-cubed
Schenectady USGS Quadrangles Date: 1980

Date Saved: 9/18/2020 • Author: D.Bargovic



N

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Aerial Location Map

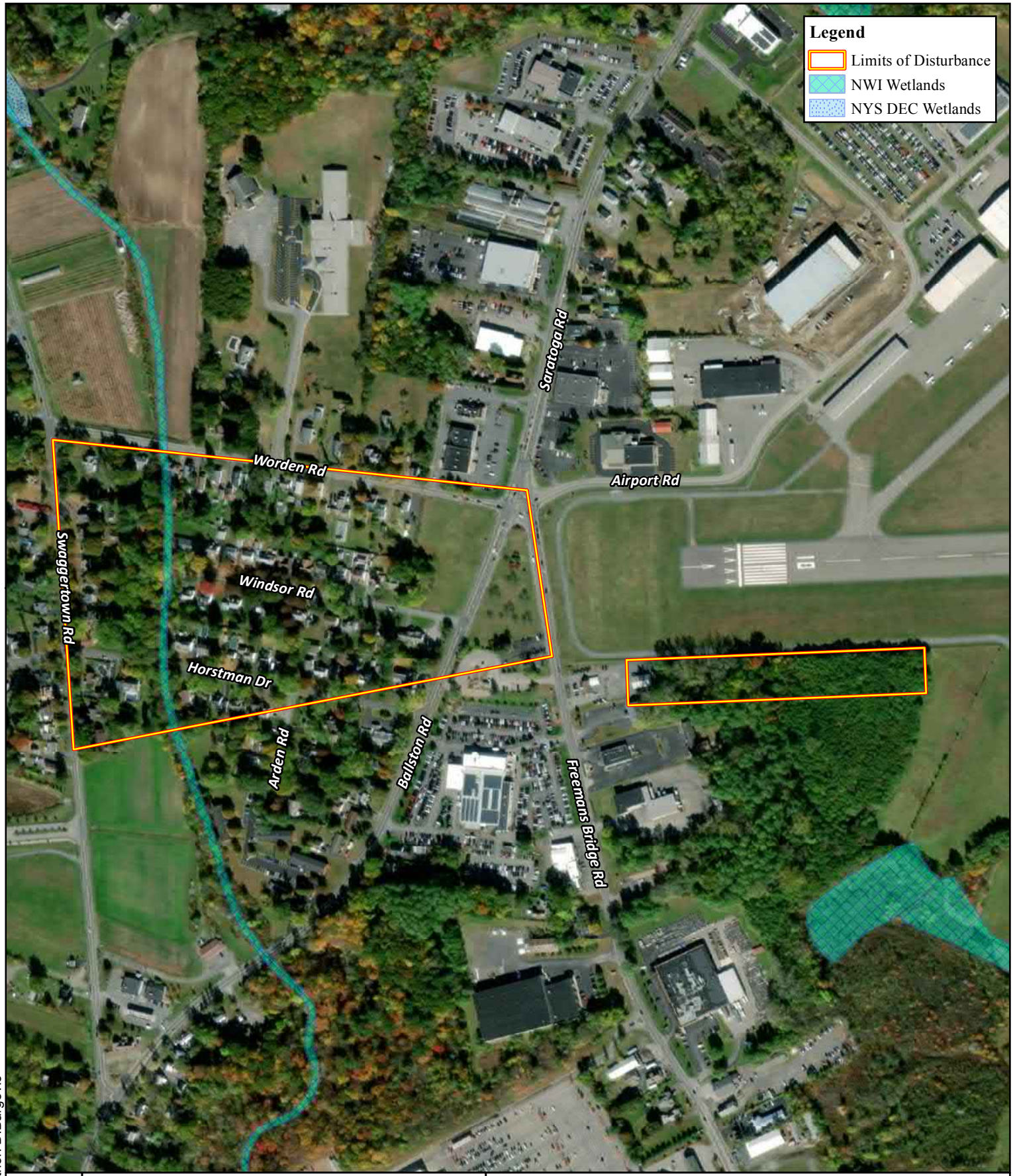
Schenectady County Airport (SCH) - Runway 10
Environmental Assessment for Tree Obstructions
Schenectady County, New York

Scale 1" = 450'

CHA Project No. 052475

Image Courtesy of the NYS Office of Information Technology Services, GIS Program Office
Photo Date: 2017

Date Saved: 9/18/2020 • Author: D.Bargovic



N

Wetlands Map

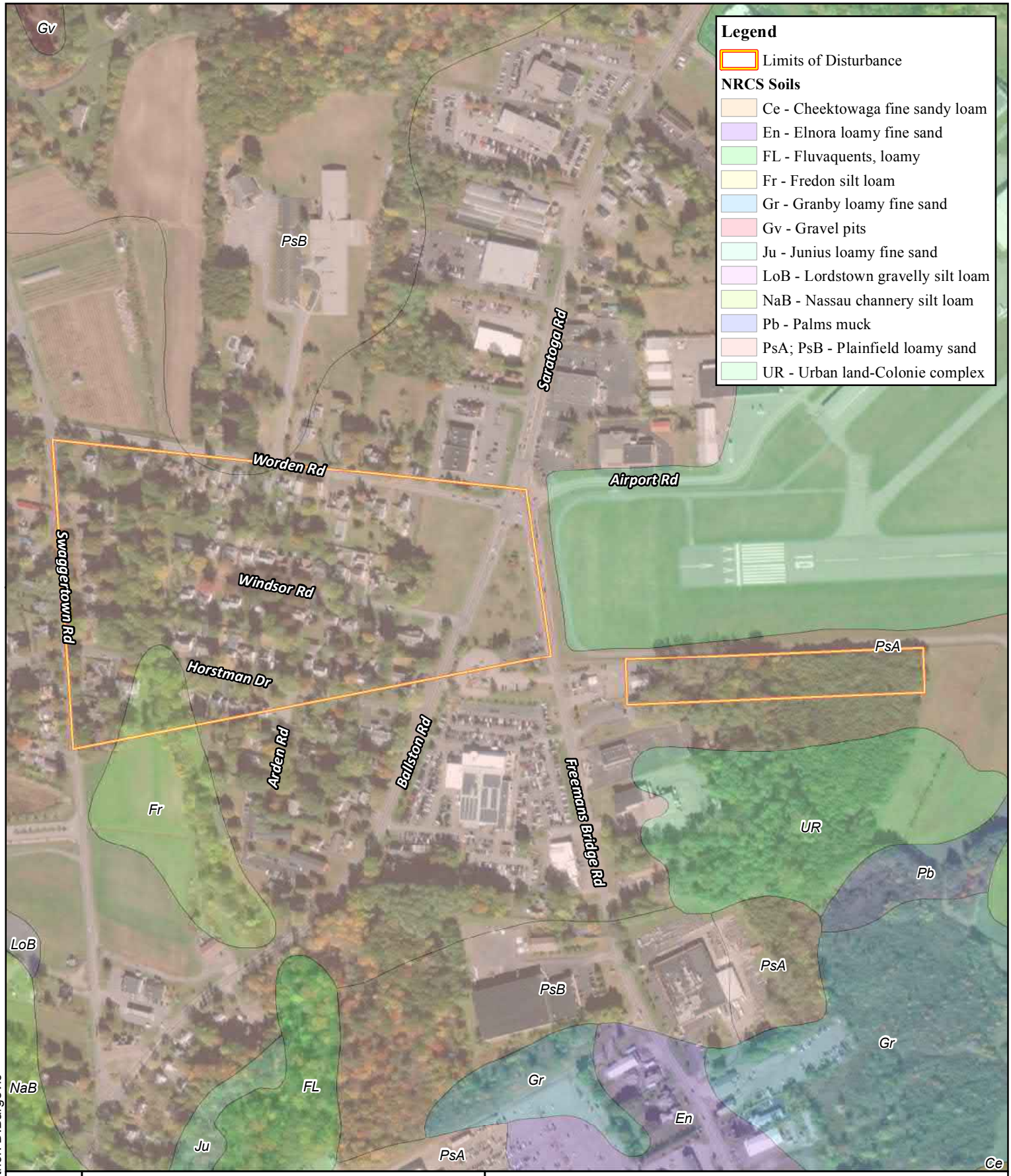
Schenectady County Airport (SCH) - Runway 10
Environmental Assessment for Tree Obstructions
Schenectady County, New York

Scale 1" = 450'

CHA Project No. 052475

Image Courtesy of the NYS Office of Information Technology Services, GIS Program Office • Photo Date: 2017 • NWI Wetland data courtsey of the National Wetlands Inventory produced by the U.S. Fish and Wildlife Service

Date Saved: 9/18/2020 • Author: D.Bargovic



Date Saved: 9/18/2020 • Author: D.Bargovic

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CHA

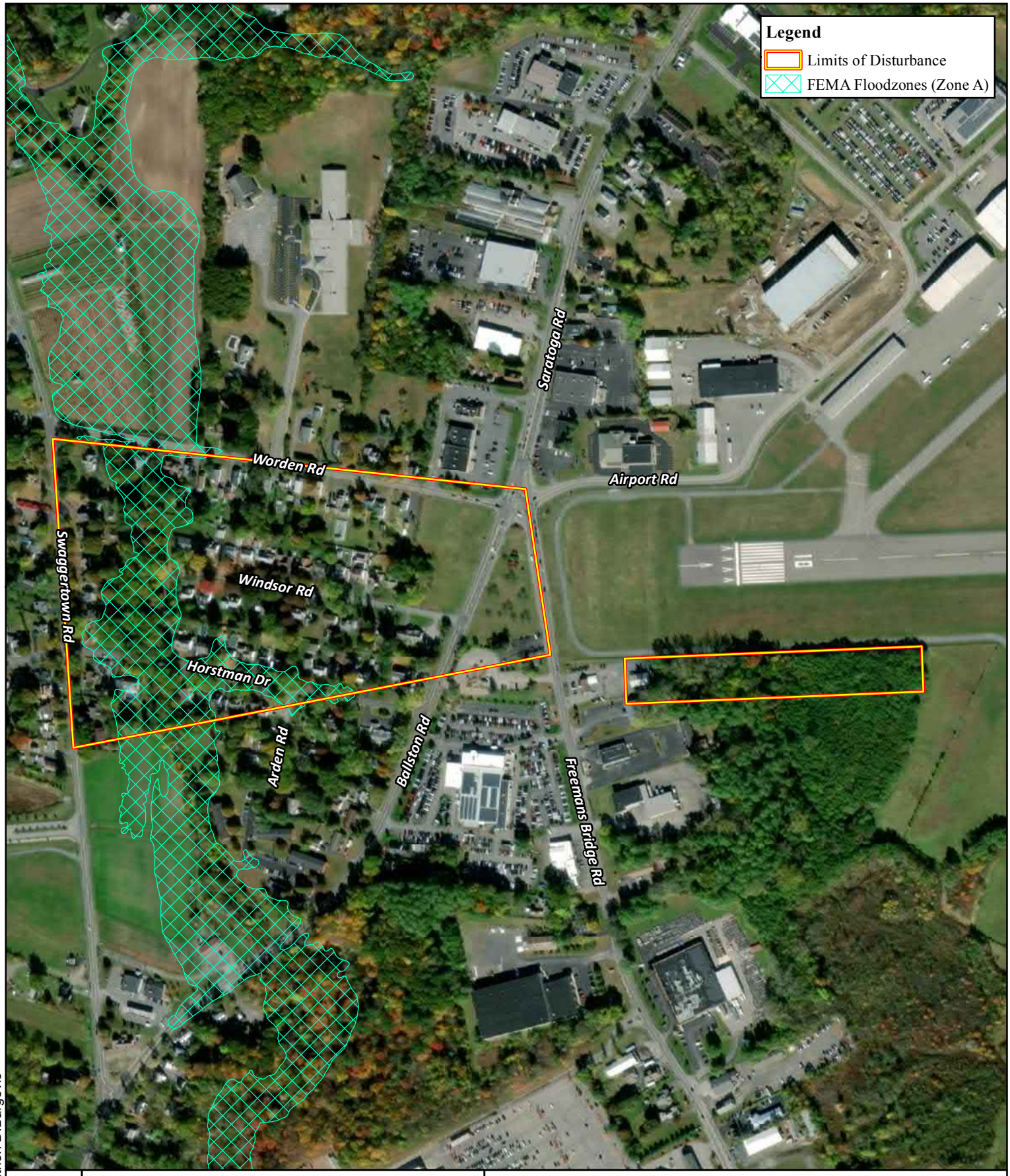
NRCS Soils Map

Schenectady County Airport (SCH) - Runway 10
Environmental Assessment for Tree Obstructions
Schenectady County, New York

Scale 1" = 450'

CHA Project No. 052475

Image Courtesy of the NYS Office of Information Technology Services, GIS Program Office • Photo Date: 2017
Soil Data Courtesy of the Natural Resource Conservation Service



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FEMA Floodzone Map

Schenectady County Airport (SCH) - Runway 10
Environmental Assessment for Tree Obstructions
Schenectady County, New York

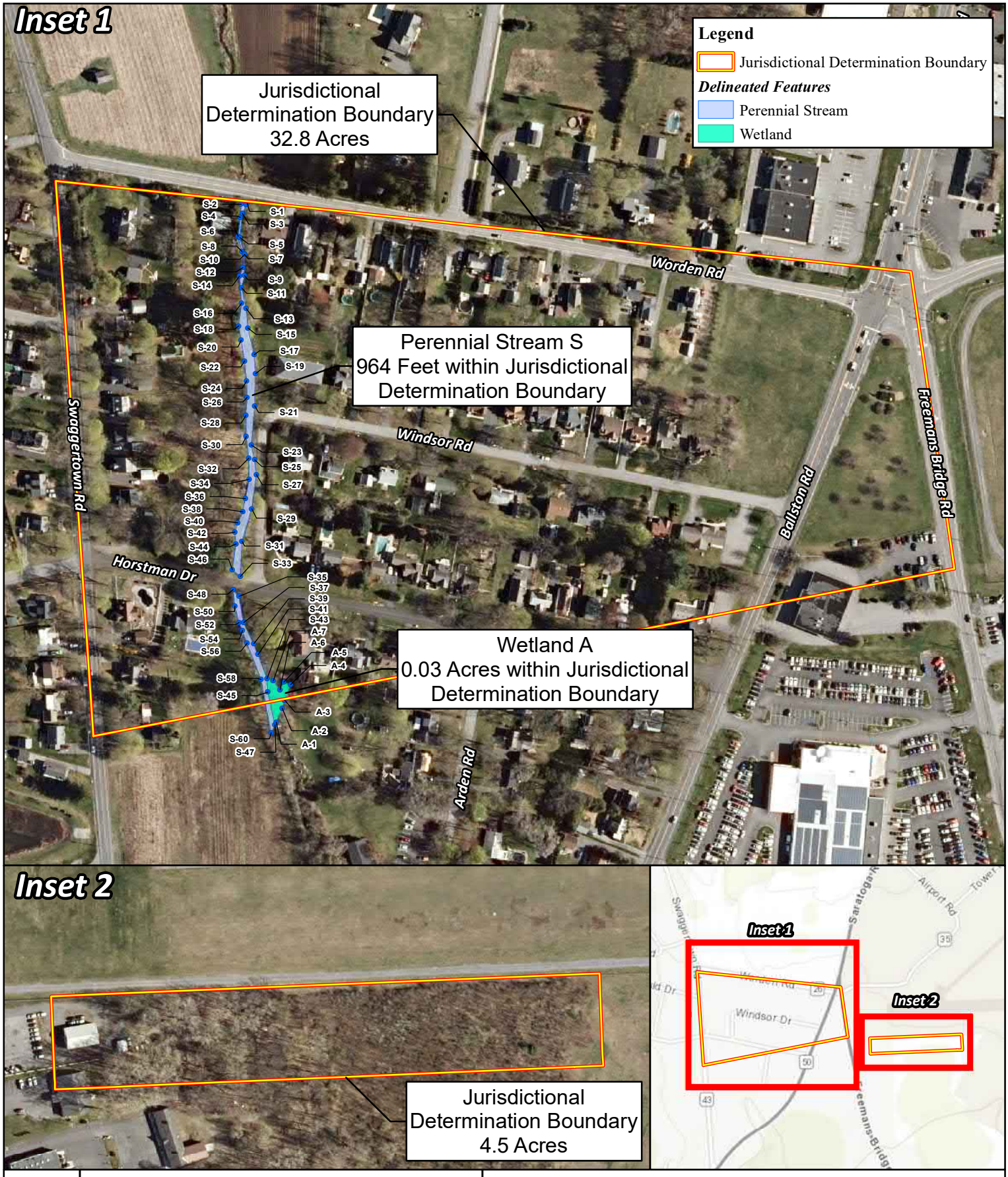
Scale 1" = 450'

CHA Project No. 052475

Image Courtesy of the NYS Office of Information Technology Services, GIS Program Office • Photo Date: 2017
Floodzones courtesy of the Federal Emergency Managment Agency (FEMA)

Date Saved: 9/18/2020 • Author: D.Bargovic

Appendix B



N

0 100 200 400 Feet

(Insets)

CHA

CHA Project No. 052475

Wetland Delineation Map

Schenectady County Airport (SCH) - Runway 10
Environmental Assessment for Tree Obstructions
Schenectady County, New York

Image Courtesy of the NYS Office of Information Technology Services, GIS Program Office • Photo Date: 2017

Appendix C

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Schenectady County Airport City/County: Glenville/ Schenectady Sampling Date: 9/29/20

Applicant/Owner: County of Schenectady State: NY Sampling Point: Wet A-2

Investigator(s): N. Frazer & C. Scrivner Section, Township, Range:

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 42° 50' 49.07" Long: -73° 56' 51.03" Datum:

Soil Map Unit Name: Ferdon silt loam (Fr) NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes ____	No x	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes x	No ____	Depth (inches): 12

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
This wetland is adjacent to a perennial stream.

VEGETATION – Use scientific names of plants. Sampling Point: Wet A-2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Cornus amomum*	15	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Impatiens pallida*	90	Yes	FACW
2. *Rosa multiflora*	2	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	92	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	5	Yes	FAC
2. *Parthenocissus quinquefolia*	10	Yes	FACU
3.			
4.			
	15	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	105	x 2 =	210
FAC species	20	x 3 =	60
FACU species	12	x 4 =	48
UPL species	0	x 5 =	0
Column Totals:	137 (A)		318 (B)

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

_X_ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point Wet A-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	70	7.5YR 3/4	30	C	M	Loamy/Clayey	Prominent redox concentrations
10-11	10YR 3/1	80	10YR 3/6	15	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 5/1	5	D	M		
11-18	2.5Y 2.5/1	90	7.5YR 4/4	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ? Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ? Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ? Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Schenectady County Airport City/County: Glenville/ Schenectady Sampling Date: 9/29/20

Applicant/Owner: County of Schenectady State: NY Sampling Point: Upl A-2

Investigator(s): N. Frazer & C. Scrivner Section, Township, Range:

Landform (hillside, terrace, etc.): slight slope Local relief (concave, convex, none): convex Slope %: 2

Subregion (LRR or MLRA): LRR R Lat: 42° 50' 49.07" Long: -73° 56' 51.03" Datum:

Soil Map Unit Name: Fredon silt loam (Fr) NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes ____	No x	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No x	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: Upl A-2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*	8	Yes	FACU
2. *Acer negundo*	3	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	11	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Rhamnus cathartica*	5	Yes	FAC
2. *Ailanthus altissima*	5	Yes	UPL
3. *Rubus occidentalis*	15	Yes	UPL
4.			
5.			
6.			
7.			
	25	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Glechoma hederacea*	15	Yes	FACU
2. *Poa pratensis*	6	No	FACU
3. *Oxalis stricta*	5	No	FACU
4. *Artemisia vulgaris*	1	No	UPL
5. *Hackelia virginiana*	3	No	FACU
6. *Parthenocissus quinquefolia*	5	No	FACU
7. *Vitis riparia*	10	No	FAC
8. *Chelidonium majus*	40	Yes	UPL
9.			
10.			
11.			
12.			
	85	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	20	Yes	FAC
2.			
3.			
4.			
	20	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 37.5% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	38	x 3 =	114
FACU species	42	x 4 =	168
UPL species	61	x 5 =	305
Column Totals:	141 (A)		587 (B)

Prevalence Index = B/A = 4.16

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point Upl A-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/2	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Appendix D

Photo 1-Stream S near flag S-1 facing south.

Photo 2- Stream S near flag S-1 facing north.

CHA

SITE PHOTOGRAPHS

Schenectady County Airport
Off Airport Obstruction Tree Removal
Town of Glenville, Schenectady Co., NY

Sheet 1	CHA File No. 052475

Photo 3- Stream S near flag S-11 facing north.

Photo 4- Stream S near flag S-11 facing south.

CHA

SITE PHOTOGRAPHS

Schenectady County Airport
Off Airport Obstruction Tree Removal
Town of Glenville, Schenectady Co., NY

Photo 5- Stream S near flag S-33 facing north.

Photo 6- Stream S near flag S-33 facing south.

CHA

SITE PHOTOGRAPHS

Schenectady County Airport
Off Airport Obstruction Tree Removal
Town of Glenville, Schenectady Co., NY

Photo 7- Stream S near flag S-47 facing south.

Photo 8- Stream S near flag S-47 facing north.

CHA

SITE PHOTOGRAPHS

Schenectady County Airport
Off Airport Obstruction Tree Removal
Town of Glenville, Schenectady Co., NY

Photo 9-Wetland A near flag A-2.

Photo 10-Wetland A soils near flag A-2.

SITE PHOTOGRAPHS

Schenectady County Airport
Off Airport Obstruction Tree Removal
Town of Glenville, Schenectady Co., NY

Photo 11-Upland A near flag A-2.

Photo 12-Upland A soils near flag A-2.

CHA

SITE PHOTOGRAPHS

Schenectady County Airport
Off Airport Obstruction Tree Removal
Town of Glenville, Schenectady Co., NY

Appendix E

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD):

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
County of Schenectady, 100 Kellar Avenue, Schenectady NY 12306-1126

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: New York District

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: (USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: NY County/parish/borough: Schenectady County/ Town of Glenville
Center coordinates of site:
Lat. 42-50-54.03 **Pick List**, Long. **Pick List**. -73-56-47.12
Universal Transverse Mercator:
Name of nearest waterbody: Horstman Creek

Identify (estimate) amount of waters in the review area:
Non-wetland waters: 964 linear feet
Cowardin Class: R5UBH
Stream Flow: Perennial
Wetlands: 0.03 acres.
Cowardin Class: PEM

Name of any water bodies on the site that have been identified as Section 10 waters:
Tidal: N/A
Non-Tidal: N/A

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to

request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps:
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name:1" = 2000' Schenectady Quadrangle.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soil Survey for Schenectady County.
☒ National wetlands inventory map(s). Cite name: Schenectady Quadrangle.
☒ State/Local wetland inventory map(s): NYSDEC Freshwater Wetland Map
☒ FEMA/FIRM maps: Panel 36093C0152D
☐ 100-year Floodplain Elevation is: Not shown
☒ Photographs: ☒ Aerial (Name & Date): Photo Date 2017
or ☒ Other (Name & Date): Site Photographs taken by CHA on September 29, 2020.
☐ Previous determination(s). File no. and date of response letter:
☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

_____	_____
Signature and date of Corps Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

Aquatic Resources					
Feature	**Latitude (decimal degrees)**	**Longitude (decimal degrees)**	**Type of Aquatic Resource**	**Estimated Amount of Aquatic Resource in Review Area**	**Geographic Authority**
Wetland A	Center Point Coordinates		Wetland	0.03 acres	Section 404
	42.846965	-73.947507			
Stream S	Beginning Point Coordinates		Non-wetland	964 linear feet	Section 404
	42.849595	-73.947666			
	Ending Point Coordinates				
	42.846895	-73.947604			